

***o*-Toluidine-d₉**

Section 1. Chemical product and company identifications

Product code: D-3571

Chemical formula: C₇D₉N

CAS: 194423-47-7

CAS (unlabelled): 95-53-4

Synonyms: 2-Aminotoluene, 2-Methylaniline

Supplier / Manufacturer:

C/D/N Isotopes Inc.

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In case of emergency:

TOXYSKAN HOTLINE: 1-855-780-0599

Section 2. Hazards identifications

GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

- GHS Classification:**
- Flammable liquids (Category 4)
 - Acute toxicity, Oral (Category 4)
 - Acute toxicity, Inhalation (Category 3)
 - Eye irritation (Category 2A)
 - Carcinogenicity (Category 1B)

- GHS Label elements:**
- Pictograms:   
 - Signal word: Danger

- Hazards statement:**
- H227 Combustible liquid.
 - H302 Harmful if swallowed.
 - H331 Toxic if inhaled.
 - H319 Causes serious eye irritation.
 - H350 May cause cancer.

- Precautionary statement:**
- P201 Obtain special instructions before use.
 - P202 Do not handle until all safety precautions have been read and understood.
 - P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.
 - P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
 - P264 Wash skin thoroughly after handling.
 - P270 Do not eat, drink or smoke when using this product.
 - P271 Use only outdoors or in a well-ventilated area.
 - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 - P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 - P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P337 + P313 IF eye irritation persists: Get medical advice/attention.
 - P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
 - P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
 - P405 Store locked up.
 - P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition and information on ingredients

<u>Name</u>	<u>CAS</u>	<u>Concentration %</u>
α -Toluidine-d ₈	194423-47-7	98-100%

Section 4. First aid measures

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin contact: Wash off with soap and plenty of water. Consult a physician.

Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Indication of immediate medical attention and special treatment needed, if necessary: No data available

Most important symptoms and effects, both acute and delayed: May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Section 5. Firefighting measures

Flammability of the product: Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

Environmental precautions: Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation. Keep away from sources of ignition - No smoking.

Storage: Store at room temperature. Adequate ventilation. Protect from heat and ignition sources. Protect from light and moisture.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).

Respiratory: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US).

Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 107.15 g/mol

Physical status: Liquid

Color: Colorless to dark yellow

Odour: No data available

Density: 1.008 g/cm³

Melting point: -28 °C (-18 °F)

Boiling point: 199 - 200 °C (390 - 392 °F)

Vapour pressure: 0.35 hPa (0.26 mmHg) at 25 °C (77 °F)

Vapour density: 3.7 (Air = 1)

Partition coefficient (octanol/water): log Pow: 1.32

Water solubility: 16.6 g/L

Lower explosion limit: 1.5 Vol%

Upper explosion limit: 7.5 Vol%

Auto-ignition temperature: 480 °C (896 °F)

Flash point: 85 °C (185 °F)

Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.

Incompatibility: Strong oxidizing agents.

Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

Reactivity conditions: Heat, flames and sparks.

Section 11. Toxicological information (unlabelled)

Toxicological data: *o*-Toluidine

Information on ingredients:

<u>Name</u>	<u>CAS</u>	<u>LD₅₀</u>	<u>LC₅₀</u>
<i>o</i> -Toluidine	95-53-4	Oral - Rat - 670 mg/kg Dermal - Rabbit - 3,276 mg/kg	Inhalation - Rat - 4 h - 862 ppm

Potential acute effects

- **Eyes:** Causes serious eye irritation.
- **Skin:** No data available.
- **Inhalation:** Toxic if inhaled.
- **Ingestion:** Harmful if swallowed.

Potential chronic effects

- **Carcinogenic effects:** This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Found positive for carcinogenicity in EPA Genetox program. Possible human carcinogen. IARC: 1 - Group 1: Carcinogenic to humans (*o*-Toluidine). ACGIH: A3: Animal carcinogen.
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** No data available.
- **Medical conditions aggravated by overexposure:** Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer.

Section 12. Ecological information

Ecological data:

<u>Name</u>	<u>Results</u>	<u>Species</u>	<u>Period</u>
<i>o</i> -Toluidine	150 mg/l LC50	Oryzias latipes	96 h
	16 mg/l EC50	Daphnia magna	48 h
	120 mg/l EC50	Selenastrum capricornutum	72 h

Effects on environment: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Mobility: No data available.

Environmental precautions: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: Cyprinodontidae - 48 h - 450 mg/l. Bioconcentration factor (BCF): 2.2.

Section 13. Disposal considerations

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Toluidines, liquid

UN number: UN1708

Class: 6.1

Packaging group: II

Additional information: None

Section 15. Regulatory information

UNITED STATES: NFPA classification



Health: 3
Flammable: 2
Reactivity: 0
Special conditions: None

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

California proposition 65 requirements : Listed

SARA section 313 (specific toxic chemical listings) : Listed

CERCLA reportable quantity : Listed

Sections 302-304 reportable quantity : Listed

Community Right-to-Know (Sections 311 and 312) : Listed

Section 16. Additional information

Date of issue: September 19th, 2025

Version: 5

Elaborated by: Toxyscan Inc., 1-866-780-0599

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This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.